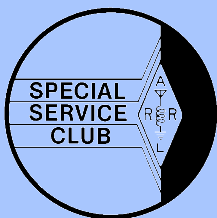




The Raleigh Amateur Radio Society's **EXCITER**

GET INVOLVED

- RARS General Membership meeting: Second Tuesday of the month.
- The RARS net meets every night except Saturday @ 8 p.m. on 146.640.
- The RARS Technical & Trader's net: Saturdays @ 8:00 PM on 146.64.
- ~~RARS meets for a monthly dinner on the First Tuesday of each month.~~



PUBLIC SERVICE EVENTS

Interested in helping? Visit
<https://www.rars.org/public-service.php>

frequently for our 2021
ham public service
schedule.

RARS General Meeting

Main Topic: ARRL Update

Presenter: ARRL NC Section Manager:
Marvin Hoffman, WA4NC

Date: April 13, 2021

Time: Meeting at 7:30 PM, informal
gathering at 7PM on Zoom.

Where: Zoom

RARS Net Monthly Summary

31 nets
582 checkins
1250 minutes

Julie Royster KT4JR
RARS net manager

RARS Officers

PRESIDENT

John Honeycutt
N8ZU
919.417.2477
jfh49@bellsouth.net

VICE PRESIDENT

Tom Lewis
N4TL
N4TL2@yahoo.com

SECRETARY

Mark Kilmer
KM4JRH
919.676.0110
mark.kilmer@gmail.com

TREASURER

Greg Seamster
KE4PAX
919.859.0029
KE4PAX@arrl.net



The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the amateur radio community in the greater Triangle area. In 1999, the society incorporated a new RARS and obtained 501(c)(3) non-profit tax status.

The objectives of the club are to promote worldwide friendship through amateur radio; to be of public service by providing radio communications in times of disaster, emergency, or civic needs; to educate members in radio technique, and to provide training classes to assist in obtaining amateur radio licenses.

Anyone interested in amateur radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18 per year (from July 1 through June 30). Additional immediate family members pay \$5 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12 per year. Dues for non-licensed associate members are \$9 per year. Applications for membership may be obtained from the treasurer or on the RARS website.

<https://www.rars.org>

Exciter

The Exciter is the official newsletter of the Raleigh Amateur Radio Society. It appears each month as a PDF on the RARS website at www.rars.org. Members receive email notification when the latest version is available. Please provide your email address to the Treasurer.

The Exciter welcomes articles, advertisements, and other contributions. To submit a piece to the newsletter, please contact the Editor. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's Exciter is the Saturday that is ten days before the general meeting. All submissions must be final. Drafts are not accepted.

The views expressed in the Exciter are those of the individual authors and do not necessarily reflect the views of the Editor or RARS.

Tom Lewis, N4TL, editor (editor@rars.org)

For Your Information

RARS General Meeting

Date: Second Tuesday of each month

Location: Ridge Road Baptist Church 2011
Ridge Road Raleigh, NC, 27607

Time: People begin arriving at 7 p.m. The
meeting officially begins at 7:30 p.m.

RARS Monthly Dinner

All members and guests are welcome to
the monthly (first Tuesday) RARS Supper,
6:30PM, at the IHOP Restaurant, 7471 Six
Forks road, 27615. Its on the corner of Six
Forks road and Sawmill Road, 6:30 PM to
8PM They have a room for us that is to the left
when you enter the restaurant. Informal and
Dutch, just bring your appetite and best rag to
chew.

RARS Repeaters in Raleigh

145.130, 146.640 and 444.525

Join us for the nightly RARS net at 8 p.m.
on the 146.640 repeater. All hams holding a
Technician class license or higher are invited
to check in. We welcome both RARS and non-
RARS members to the net.

There is a net Listing on the RARS web-
site click here. <https://www.rars.org/nets.php>

VE Testing

The RARS VEs will accept walk-in testing in
February, May, August and November at
5:30PM, prior to RARS membership meetings
at Ridge Road Baptist Church; the RARSfest
in April; the Cary Swapfest in July; the JARS-
Fest in November; and following RARS license
classes. Please bring a photo ID, your origi-
nal and a copy of your current license, your
\$14 exam fee, and any valid CSCEs that prove
passing elements beyond that of your current
license. Visit <https://www.rars.org> for more in-
formation.

FREE

FREE

**The AB4OZ HamFest will be SATUR-
DAY, April 17, 2021.**

**10:00 am, Setup at 9:00 am. 6200
Glenwood Avenue, Raleigh, NC**

**in the Pleasant Valley Shopping
Center parking lot.**

**Weather permitting. Check on
[QRZ.com](https://www.qrz.com) to be sure its on.**

**Masks required around anyone not in
your household**

March 9, 2021 RARS meeting

The meeting was held on Zoom, as we have been since the covid-19 pandemic started. Many members connected from 7PM on. President John Honeycutt, N8ZU, ran the formal part of the meeting. See the meeting minutes on [page 29](#) for details. After the formal part of the meeting. Tom, N4TL, asked everyone to mute their microphones. Bob Conder, K4RLC introduced our guest speaker. Ray, G4FON, will talk about Bletchley Park. Bletchley Park was the center of Allied code breaking during WW 2, and helped end the war and save Allied lives. Ray was a guide at Bletchley Park for almost 10 years. He currently lives in Heidelberg, so it was the middle of the night when he presented to us. Thanks for staying up late. Ray is the author of the G4FON Morse Trainer - free great software - and President of the First Class Operators club CW.

A recording of the presentation is at this URL,

<https://youtu.be/42RoGfZR91Q>



Ray Burlingame-Goff, G4FON, N4FON, DG4FON
in Germany during the presentation

March 9, 2020 RARS meeting, continued



Bletchley Park main building



The Enigma cipher machine used by Germany during WW2.

A flaw in the machine helped the people at Bletchley park find the key setting each day. The flaw was that each letter never encrypted to itself.

March 9, 2020 RARS meeting, continued

Since Ray Burlingame-Goff, DG4FON was in Germany, His presentation was first. After the presentation the regular meeting was held. See the minutes on [page 29](#).

March 2021 RARS AWARDS

John Honeycutt (N8ZU) made the presentations to the individuals who were awarded the Special Lifetime Membership Awards. Also presented were the Thank You Award certificates to those who have made a significant contribution to the club and HAM radio as a whole. Here is the full list.

Plaques: RARS Special Life Members:

1. Gary Pearce, KN4AQ and Cindi Pearce, KD4ACW. Major contributors to RARS and the Ham Community for several years. Among other things, they were past RARS Officers and Chairpersons of RARSfest.
2. Greg Seamster, KE4PAX, has served over 20 years as RARS Treasurer.

Certificates:

1. Jeff Wittich, AC4ZO – In appreciation as the RARS License Trustee for W4DW, W4RNC and N4RAL from 1999 to 2020.
2. Virginia Enzor, NC4VA – In appreciation as the RARS NET MANAGER for years 2018 to 2020.
3. The Ridge Road Baptist Church – In appreciation for use of their facilities for several years.
4. Tara Walker, W4TSW – In Appreciation as Rarsfest Co - Chairwoman in 2018 and Chairwoman in 2019.
5. Tara Walker, W4TSW – In appreciation as RARS Publicity Director 2018 to 2020.
6. Tom Lewis, N4TL – In appreciation, as RARS VP, of providing great programs for our regular RARS Meetings.
7. Tadd Torborg, KA2DEW – In appreciation in leading his team, RARS and the ham community in building the TARP Network

March 9, 2020 RARS meeting, continued

8. R. Nino Carrillo, KK4HEJ – In appreciation for designing the NinoTNC used by the NC Packet System.
9. Douglas L. Wall, N3LTV – In appreciation for building several TNCs, cables, and being a NCS and mentoring newcomers to the NCPacket System.
10. Aaron D. Lancaster, KN4ORB – In appreciation for creating and coding the APRS to NCPACKET gateway project and providing creative ideas for Network.
11. Chuck deCourt, W3WZN – In appreciation of his ongoing leadership of the RARS Repeater Committee and as the ARRL NC State Government Liaison.
12. Danny Hampton, K4ITL – In appreciation of his valuable assistance in working with the RARS Repeater Committee and maintaining the RARS Repeaters for several years.
13. Charlie Durst, NC4CD – In appreciation of his providing repeater space and support to the RARS Repeater Committee.
14. Alan Pitegoff, AB4OZ – In appreciation for creating the AB4OZ Hamfest and the weekly TA-CO Thursday outing to help provide fellowship for RARS and hams through the ham community.
15. Bob Starkenburg, W4TTX – In appreciation as RARS Field Day Chairman in 2019 and 2020.
16. Marty Young, W4MY – In appreciation as RARS NC QSO Party Chairman for years 2013 to 2021.
17. Curt Phillips, W4CP – In appreciation as a coordinator for the Tarheel Shortwave and Scanner Group
18. Kelly Mills, AE4FG – In appreciation as a coordinator for the Tarheel Shortwave and Scanner Group
19. Brantley West, K4CBW – In appreciation as the youth coordinator of Kid's Day for the Raleigh area.
20. Kenn Kubacki, NE4Y – In appreciation for the NC QSO Party as Website and Media Admin. and for writing the instructions for electronic log submissions.
21. Mark Kilmer, KM4JRH – In appreciation of his willingness to help raise and lower antennas and assist in the removal of surplus radio gear when needed.
22. Charles Littlewood K4HF - In Appreciation Of Efforts and Contributions Forward The Success Of The Society assisting families of "Silent Keys" with the sale of equipment and handling the sale of equipment donations

March 9, 2020 RARS meeting, continued

 TL Tom Lewis, N4TL	 David KN4CUZ	 J JULIE	 RK Rob KO4HUI
 KM4JRH - Mark Kilmer	 dennis wz0q	 K- K2UCU - Tom	 RN Ryan N7RYN
 RG Ray G4FON (Co-host)	 Dick KD4ISC	 K4HM - Hank	 SK Sam KN4RWI
 JH John Honeycutt N8ZU	 DA Doug AD4UL	 K4RGN Chuck	 Tadd (KA2DEW) Torborg
 MK Mike KN4DRN	 DN Doug N3LTV	 KD KD4KXI Daniel	 Tyler KO4BZA
 N ,Ernie, NC4EW	 EA Ed Allison N4ESA	 K- KE4IHX - Al Nickle	 VN Virginia NC4VA
 AA Alan AB4OZ	 EB Ernie Bauer - N1AEW	 K KE4NPZ	 MK MEME KE4NGM
 AK Alanna K4AAC NC	 GB Garry Bartels, KJ4KM	 KK4ETS Mike Eckardt	 CK Carl KJ4WD
 B betsy	 Gary Pearce KN4AQ	 KM KN4VTT Matthew	 CW Charles WA4OSS
 BK Bob K4RLC SC	 Greg KE4PAX	 KS KO4GOG Stephen	 CK Cliff KA7NSU
 BN Bob NC1X	 H/ Ham / KB4BR	 KD KO4IBL Denny	 KL K4BYN Louis
 BN Bob. N4GEB	 HG Howard Goodman	 L Larry	 KM K4MBX Mike
 BK Brantley K4CBW	 Jeremy Lindsley (KB4JDL)	 LW Lee WB4DRJ	 JK Joe KM4WRQ
 BJ Brian J Davis	 JK Jerry KE4TTS	 LK Lowell/ k4 eup	 GK Garry KM4MMC
 B Brian VE6ZS	 JC Jim Carroll N4CAE	 MS Marc Sullivan	 AG AJ4YA. Grady
 BY Brian Young - KA9QJT	 JK Jim KM4WRK	 MN Mike N4GU	 CM Charles Murray
 CD Carl Davis W8WZ	 JS Joe Spears AF1E	 NL NC4AU Larkin	 DL Dana Lapple K04JYN
 CW Charles WB4DCM	 John Izzo KO4HLP	 PR Paul Rawlins	 DP David Peterson KN8DAP
 CK Chuck, K4HF, Mary Jo, K4M	 JK John KY4ES	 RH Richard Hall K7RLH	
 Cyndi Pearce KD4ACW	 John Ray	 RN Richard N1FUA	

RARS Zoom Meeting 58 Participants

RARS President John Honeycutt, N8ZU, Presenting Cindi, KD4ACW and Gary Pearce, KN4AQ, their special life membership plaques.



Close up of the two membership plaques

RARS President John Honeycutt, N8ZU, Presenting Greg Seamster,
KE4PAX, his special life membership plaque



Close up of the membership plaque

Future RARS Meeting Topics

Titles, topics, and speakers **subject to change.**

4/13/2021	ARRL Update	ARRL NC Section Manager: Marvin Hoffman, WA4NC
5/11/2021	Two Field Day Logging programs N3FJP & N1MM	Tom Lewis N4TL
6/15/2021	Field Day	Field Day Chair Curt Phillips, W4CP
7/13/2021	HF Propagation Thanks to Bill Morine, N2COP for helping me find an expert	Carl Luetzelschwab, K9LA http://k9la.us/
8/10/2021	NCPACKET, a several-county-wide only-on-ham-radio social network.	Tadd Torborg, KA2DEW
9/14/2021	Wind turbines, solar power & traditional ways of generating electricity	Brian Henderson, VE6ZS

**During the Zoom meetings please keep
your microphone muted.**

The next few meeting of RARS will be held using Zoom at 7:30PM. Zoom is a conferencing application that runs on computers, tablets and phones. The meeting ID will be sent out to everyone via email.

Quick start guide for new Zoom users

https://support.zoom.us/hc/en-us/articles/360034967471-Quick-start-guide-for-new-users#h_b0c98dfa-d90f-486d-9617-71ab7b41a273

Zoom help center

<https://support.zoom.us/hc/en-us>

During all of our Zoom meetings please edit your name so your call is shown. Do a right click on your own image and choose rename. Add your call after your name. Thanks.

<https://www.rars.org>

FIELD DAY 2021 FULL SPEED AHEAD

Field Day! That wonderful time of food, fun, fellowship and playing with radios, antennas, tents, generators and mosquitoes. Forget that last part; NO MOSQUITOES are invited to Field Day.

And our watch-phrase for 2021 is FULL SPEED AHEAD!! We are planning for a FULL TRADITIONAL Field Day operation!

A couple of weeks ago, the president said that over 100 million Americans have received at least one vaccination shot against COVID-19. That's close to one-third of our under 330 million people. And the vaccination rate is accelerating, so there is every reason to believe that by the end of June, pretty much everyone who wants to be vaccinated will have achieved that status. Speaking for myself, I heartily encourage everyone to get fully vaccinated, ASAP! I got the shots just as soon as I could find a place to do it!

So FULL SPEED AHEAD!! The Carroll's have graciously agreed to have their farm serve as the RARS Field Day site again.

Watch out for more announcements regarding Field Day soon!

73,
Curt Philips W4CP
RARS Field Day Chairman



Learning the Code

In January of 2016, I built an electronic Morse code trainer using an Arduino. The Arduino is a small microcontroller (16 MHz) board that is programmable. The code trainer will send a few characters and the student has to send them back. If they are correct, the trainer goes on to new characters. If they are wrong the trainer turns, the LCD back light red and sends them again. When the characters are correct, the LCD backlight will turn white and sends new characters. More information is at this URL <https://www.qsl.net/n4tl/arduino/toplevel.htm>

Now in 2021....

Bob Conder, K4RLC, told me about Morserino-32, which is a keyer and code trainer. You can read about it at this website, <http://www.morserino.info/>

It has an Echo Trainer mode, which is the same as my Arduino trainer. It uses the Heltec ESP32 system on a chip microcontroller. This code trainer has far more features then my Arduino trainer. It has a Keyer built in with an output for a radio and an audio tone so you can hear what you are sending.

It looked interesting so I bought one. It takes many weeks to arrive. Its easier to use than my Arduino trainer. It does not come with a battery. I bought a battery and wire for the battery from AdaFruit. The battery is 3.7 volts, 1200mAh, PID 258. The wire is JST PH 2 Pin, PID 3814. Their website is <https://www.adafruit.com/>

Dan, N3ND sent me a copy of the CWops Newsletter. I found it on the internet and it is available to read free. Check it out at <https://cwops.org/newsletters/>

The Number 134, March 2021, has an article about the updated [G4FON CW Trainer](#). See page 16. The new version 10 trainer has receiving as well as sending training. One of the new features is that it will say a word and the student has to send the word to the trainer. I had to change to a male voice and slow it down so I could understand the word.

There is a lot of good information about learning the code at the CWops website.

[CW Academy – CWops](#)

73 Tom N4TL

RARS Birthdays

Bill	KO4IBN	04/01
Devin	KN4FVH	04/01
Paul	KO4LZ	04/01
Roger	KB4FEU	04/02
Rob	KM4MLY	04/03
Bob	W4TTX	04/03
Patrick	KN4YEH	04/04
Garry	KM4MMC	04/07
Ginger	KD4OKP	04/08
Henry	WB2AGA	04/08
Julia	KT4JR	04/09
Keith Buchanan		04/10
Dennis	NC4DK	04/10
Bob	K2QJ	04/11
Mike	KK4QMA	04/12
Dave	K4KDP	04/13
Tom	NC4TS	04/15
Thomas	N4IZE	04/15
Cindy	KB8LVU	04/15
Peri	KG4IVD	04/16
Albert	N4AGG	04/16
Ryan	N7RYN	04/17
Charles	KM4MBS	04/17
Bob	KG4BDX	04/18
Kirk	KI4RK	04/19
Larry	W4LEC	04/19
John	W4WWD	04/20
Peter	K2AXI	04/21
Fin	NC4FG	04/22

RARS Birthdays

Troy	KN4WSO	04/22
Joanne	AK4RJ	04/23
Pete	KI4LWQ	04/23
Dave	KG4OPZ	04/24
Patrick	W4NMS	04/25
John	K4RUF	04/27
Charlie	WA4OSS	04/27
Kirk	KM4RHF	04/27
Glen	KE4NPZ	04/27
Joe	KT4JOE	04/27
Daniel	AG4DB	04/28
John	NC4JP	04/29
Stan	WA2KQY	04/29
Michael	KD4OKR	04/29

New Members

Mike Barts	N4GU
Tyler Elrod	KN4CHG
Ham Hicks	KB4BR
David Howard	KO4NTB
Matt Wingfield	N4MRW
Becky Wingfield	KH2TI
Brian Fabricatore	KO4OQV
John Bowman	N4JMB
Michael Romanus	N3HKV
Anthony Doura	KO4KTZ
Robbie Ransdell	KA4RDR
Kelly Padgett	KO4LRH

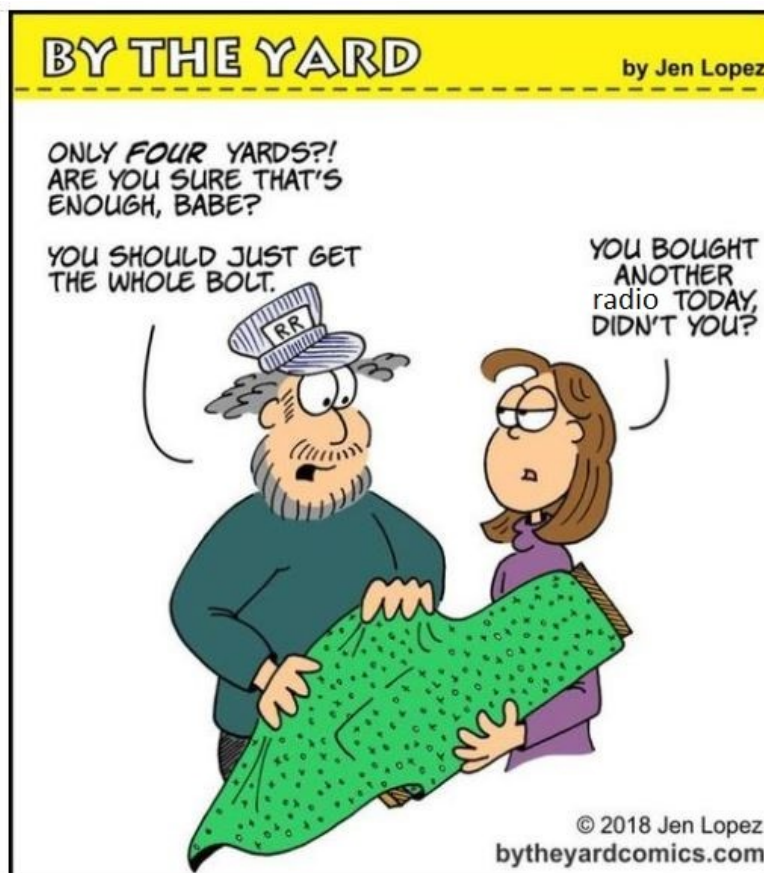
Everyone is welcome!



Every Thursday there is a “**Taco Thursday**”
Lunch at the Taco Bell, 7036 Knightdale Blvd,
Newbern Ave. (Business 64) in Knightdale. We
eat outside so bring a chair and Join the Tail-
gate Party. Weather permitting.

Weather permitting

The free AB4OZ HamFest will be Saturday, April 17, 2021. 10:00 am, Setup at 9:00 am. 6200 Glenwood Avenue, Raleigh, NC in the Pleasant Valley Shopping Center parking lot. Check the latest information here [QRZ.COM](https://www.qrz.com). Pictures from the last AB4OZ [Hamfest](#).



Volunteer Opportunities.

Two charity bike events are now listed on the RARS public service page and appear on the group calendar. These events, the Raven Rock Ramble and the Bike MS: New Bern events occur in August and September respectively. I hope to announce additional events in the near future.

In all, there are ten event possibilities this year with the earliest tentatively scheduled for the first weekend in June. Hopefully, the vaccination numbers will continue rising to the point that, by then, folks will be comfortable participating. Of course, volunteer participation is contingent upon favorable conditions relative to COVID and whether the event can take place within State regulations in effect at the time.

<https://www.rars.org/public-service.php>

Thanks. Jeremy, KB4JDL



Central Carolina SKYWARN Net

When: Tuesday nights, 9:15pm to 10:15pm, (GMT-05:00) America/New York,

Organizer: Virginia Enzor, NC4VA

Central Carolina SKYWARN has been granted temporary use of the K4ITL 145.210 repeater (-offset, tone of 82.5) until the 146.88 repeater is fully repaired.

<https://www.rars.org>

Interesting Websites and Information

Thanks to Bob Conder, K4RLC for posting these three videos.

QCWA chapter 126 video. "Tools for the Electronics Workbench."

<https://youtu.be/AxOEN0wTHUI>

RARS meeting Bob Heil "History of this audiophile journey"

https://www.youtube.com/watch?v=zryD6s_luk

RARS meeting Ray G4FON/DG4FON gave a video tour of "Bletchley Park"

Bletchley Park was the center of Allied code breaking during WW 2, and helped end the war and save Allied lives. (Ray is the author of the G4FON Morse Trainer -free great software - and President of the First Class Operators club CW.) 73 de K4RLC Bob

<https://youtu.be/42RoGfZR91Q>

AWA Code Practice Oscillator.

Antique wireless solder free code practice kit.

<https://antiquewireless.org/homepage/kits-matt-code-practice/>

AF4K Crystals has new owner.

Brian Carling, AF4K, Ran a crystal business for many years. He passed away last year. Steve Johnson, WD8DAS., has purchased the business.

The new website is <http://www.af4k-crystals.com/>

Computer parts at Discount Electronics.

<https://discountelectronics.com/parts-laptop-pc/>

1940 Sears, Roebuck and Co catalog.

Brian KN4R sent this link to a 1940 Sears, Roebuck and Co catalog. Full of ham radio and sound equipment.

<https://www.waynekirkwood.com/images/pdf/>

[Sears Roebuck 1940 Radio Amateur Test Equipment Sound Systems Catalog.pdf](#)

Interesting Websites and Information continued

ARRL Roanoke Division Service Award.

North Carolina ARRL Section Emergency Coordinator Tom Brown, N4TAB, has been awarded the ARRL Roanoke Division Service Award.

Brown contributes to the North Carolina Emergency Management Agency initiative as the COMC and AuxComm Coordinator, which involves and promotes the use of amateur radio. -- Thanks to Steve Watterman, K4CJX

<http://www.arrl.org/arrlletter?issue=2021-03-18>

Radio CAT control video

Gary, K3OS, published a video about CAT controlling his Yaesu FTdx10. This same technique can be used with any computer controllable rig. He uses the PocketRxTx –Transceiver & WebSDR Remote Control for Android, Version 3.0. You can read about it here, <https://www.yo3ggx.ro>.

Here is Gary's video <https://youtu.be/cc5LjH0D9MI>

From W4MPS <w4mps@nc.rr.com>

NCQP 2021 Results

<http://ncqsoparty.org/results/results2021/>

N4P Video

[NCQP N4P Operation 2021 - YouTube](#)

Antenna grounding

From Frank Barnes, W4NPN

The March 31st issue of Radio World has a good article on antenna grounding in a rocky environment...might be of interest to some. The link to the issue is here, see page 8:

https://issuu.com/futurepublishing/docs/rwm1187.digital_ns?fr=sZGZINDMxMDczNTA

Exciter Articles

Note that there is a blue bar at the top of each page. There also is a line at the bottom of each page. When sending single page articles to the Exciter please leave room for them.

<https://www.rars.org>

YOUTH LOUNGE

Morse Code Classes for (You)th!

The Long Island CW Club is continuing to offer Morse Code classes for youth in late elementary and older. Classes meet 30 minutes three times a week over 3.5 weeks. Students learn 40 characters consisting of letters, numbers, and punctuation. Many make on-air QSOs following the class.

For more information, see: <https://longislandcwclub.org/teaching-kids-morse-code/>

Technician License Question

Here's a question that could appear on a Technician license exam.

What type of wave carries radio signals between transmitting and receiving stations?

- A. Electromagnetic
- B. Electrostatic
- C. Surface acoustic
- D. Ferromagnetic

Find more questions here:

https://hamexam.org/flash_cards/15-Technician

PSE Send Us Photos!

Please send photos (with a caption) of youth "playing radio" to Brantley K4CBW (k4cbw@arrl.net) for inclusion in the Exciter. Whether operating, building, or otherwise assisting, we'd love to see youth in action!

Upcoming Operating Events

April 18, 2021	ARRL Rookie Roundup Phone
June 19, 2021	ARRL Kid's Day
June 26-27, 2021	ARRL Field Day

RARS Members, We Need YOU!

Please complete the survey below to help us better understand the talent and resources our club members can bring to youth outreach activities.

RARS youth outreach survey:

<https://forms.gle/bRSPbLrShDrWRsvY7>

73, Brantley, K4CBW



K4CBW: This youth was invited to perform disassembly, identify charred components, and reassemble for future rework.

RARS Classifieds

Copied from <https://www.rars.org/classifieds.php>

Misc Ham Radio Gear

Posted April 2nd, 2021 by: K4HF

Contact: k4hf@arrl.net

MFJ 949E HF 300 Watt Antenna Tuner Excel Condx - \$90

Uniden 9000XLT Scanner w/GRE UHF GRE Converter - \$85

Pyramid Gold Line Mod. PS-14K 13.8vdc, 14 Amp Power Supply - \$55

Tripp Lite 13.8vdc, 4.5 Amp Power Supply - \$20

RL Drake TV-1000 Low Pass Filter - \$5

RL Drake TV-300 HP High Pass Filter - \$5

Contact me by E Mail, preferred, or (919) 872-6555 Thanks, Chuck

NEW RG-213/U Coax by Commscope

Posted March 31st, 2021 by: KI4RK

Contact: ki4rk@arrl.net

NEW RG-213/U Coax by Commscope

I have about 400' of NEW CommScope (US made, probably made in the factory in Hickory NC), RG-213/U / 7713NM. 75 cents per foot, 50 feet minimum purchase. Can ship or possibly meet to deliver.

Can also deliver to next AB4OZ tailgate hamfest. Thanks Kirk Ellis...KI4RK 919-273-1981

Lafayette HA-460 AM six meter transceiver.

Posted March 27th, 2021 by: N4TL

Contact: n4tl2@yahoo.com

Lafayette, HA-460, 6 Meter transceiver from 1967. Tuned Nuvistor front end, 20 watts DC input using a 2E26 tube, about 15 watts out. Dual Conversion receiver. Dual built in power supply 12 volts DC, 117VAC. Includes matching microphone and a crystal for 50.400 MHz There is a local net in Raleigh every Monday night at 7Pm on that frequency. Works fine and I have used it on the net for over a year.
\$125.00

73 Tom N4TL

<https://www.rars.org>

RARS Classifieds continued

Tuner & Generator

Posted March 22nd, 2021 by: K4RLC

Contact: k4rlcc@hotmail.com

-MFJ-902B Portable HF (3.5 to 54 Mhz) Tuner. Exc condx, original box & manual. List: \$199.99; Asking \$85.00

- Portable (luggable) Troy Bilt 1KW Briggs & Stratton that I may sell reasonably. Used it for FD. Replaced it with a Honda. Make offer

Bob K4RLC

ICOM IC-92AD Dualband D-Star Handheld

Posted March 16th, 2021 by: K4HF

Contact: k4hf@arri.net

ICOM IC-92AD 5 Watt 2M/440 MHz H/T with Digital Voice (D-Star). With three good rechargeable batteries, BC-177 Quick Charger and HM-186LS Spkr mike. In orig box, as new. \$275.

Contact me by e mail, preferred, or (919) 872-6555, Thanks, Chuck

Free Satellite Dish

Posted March 13th, 2021 by: K4CKB

Contact: cbusch@nc.rr.com

8-10' diameter Chanel Master black mesh aluminum dish with mounting, actuator/positioner and feed. Disassembles into 4 quarter sections which will fit into a pickup or a wagon - not heavy. Perfect for microwave, EME or GEOS Satellite work. Free for pickup in Raleigh NC. Call Chris at 919.866.8742 or email at cbusch@nc.rr.com

In-Person Amateur Radio Exams in Raleigh

Posted March 10th, 2021 by: N4MQU

Contact: MarkGibson6822@gmail.com

Five County VE Team conducts No Charge in-person Amateur Radio Exams in Raleigh, NC On the First Saturday of every month except in July. It will be on the second Saturday. Our next exam is April 3 in Raleigh. Registration required at <http://www.fivecountyhre.org/fcvt/>.

RARS Classifieds continued

FOR SALE

Posted March 7th, 2021 by: WB4UFO

Contact: gfrski1948@yahoo.com

Kenwood TS-130 HF 100W 250.

Heathkit HR-1680 HF RX 125.

All above working as they should ,no problems

contact gfrski1948@yahoo.com or 919-665-0833

tnx john wb4ufo

ICOM IC-740 100 Watt HF Transceiver

Posted March 7th, 2021 by: K4HF

Contact: k4hf@arrl.net

ICOM IC-740 HF Transceiver, manual, Shure 526 base Mike. Optional power supply is available. Very good
Condx - \$295

Pyramid Gold Line Mod. 26K 13.8vdc, 20/30 Amp Power Supply - \$85

Contact me by e mail, preferred, or (919) 872-6555, Thanks, Chuck

HF Rigs For Sale

Posted March 5th, 2021 by: W8WZ

Contact: w8wz@aol.com

1. ICOM IC-735 with 500 hz CW filter for sale \$300
 2. ICOM IC-738 with 250 hz CW filter and power supply for sale \$300
 3. Alinco DX70 with 500 hz CW filter for sale \$300 (comes with mic)
- Buy all three radios for \$700
Email: w8wz@aol.com or call/text. 773-949-5243
-

RARS Board Meeting Minutes

February 16, 2021

7:00 PM on Zoom

John Honeycutt – Present
Tom Lewis – Present
Greg Seamster – Present
Mark Kilmer – Present
Jeremy Lindsley – Not Present
Carl Davis – Present
Curt Phillips – Present
Check DeCourt – Not Present
Julie Royster – Present
Alan Pitegoff – Present
Tadd Torborg – Present
Ken Latchum – Present
Chuck Littlewood – Present
Brantley West – Present
Joe White – Not Present
Liz White – Not Present
Marty Young – Not Present
Richard Kroeger – Present
Hank Montgomery – Present
Charles Good - Visitor

The meeting was called to order by John Honeycutt at 7:00 PM. A quorum was present and the January meeting minutes were approved.

Status of existing action items: – Mark Kilmer

RARS Board Meeting Minutes continued

Hank Montgomery:

Hank sent a report prior to the meeting. The following action items were noted in that report.

- Add disclaimer to website. (Complete)
- Look at membership form not fitting the page. (Complete)
- Delete and recreate the events on rars.io to pick up bug fix. (Complete)
- Remove information on the phone patch and create a link, instead, to Gary's repeater etiquette presentation. (Complete)
- Put the RARSfest cancellation notice on the website. (Complete)

Jeremy Lindsley:

- Reach out to piers for updates on Public Service Events.

Brantley West:

- Look over Boy Scout pages on website. (Complete)

Nominees for the Special Life Membership were approved.

Chuck Littlewood opened the floor for nominations for the annual award ceremony. Nominations were brought forth by Alan on behalf of Chuck DeCourt, and Julie.

Officer Reports:

Vice President - Tom Lewis, N4TL

Presentations through September are all set up. A week before each meeting, Tom contacts the speaker to make sure things are in order.

Treasurer - Greg Seamster, KE4PAX

Currently 435 members. Reported cash assets and inventory and net income. The Mobile Beacon internet service fee has been paid. Sent out an updated treasurer's report

RARS Board Meeting Minutes continued

showing the Kid's Day reimbursement. Chuck DeCourt has asked about the status of the repeater budget. Greg indicated that the membership form should be revamped. In response to a question from Carl, Greg indicated that there is a youth membership which mirrors the senior fee.

Secretary - Mark Kilmer, KM4JRH

No report

Committee Reports:

Public Service Director:

Jeremy Lindsley, KB4JDL

No report

Education Director:

Carl Davis, W8WZ

No report

Field Day Chair:

Curt Phillips, W4CP

ARRL has extended the rule waivers from last year, however home stations will be limited to 150 watts PEP. Curt is soliciting input for operating, and noted that the club has access to two AB577 Rocket Launchers. He is contacting other FD leaders from last year to get an idea of their plans.

FM Repeater Chair:

Chuck DeCourt, W3WZN

Alan Pitegoff will make site survey next week.

RARSfest Chair:

Vacant

Exciter Editor:

Tom Lewis, N4TL

Tom is taking over the task of printing the award certificates. Chuck will provide the recipient list.

RARS Board Meeting Minutes continued

Food Service Chair: **Richard Kroeger, N1FUA**

No report

Net Manager: **Julie Royster. KT4JR**

Nets are going well.

ARRL Liaison: **Chuck Littlewood, K4HF**

Mentioned that the Section Manager meeting is coming up with Tim Slay(N4IB).

Youth Director: **Brantley West, K4CBW**

There were 8 youth across 4 stations for Kid's Day. Brantley solicited feedback from the participants as to what type of activities the youth would be interested in. Based on the feedback, Brantley is considering a monthly activity, such as a fox hunt, building something, etc. A committee to help out would be useful.

Carl suggested the possibility of youth participating in the NCQSO party, competing against their group for a special RARS award.

Greg sent a link to the chat window to a scouting related section of the ARRL website he had seen in 2016 December issue of the Exciter. He also mentioned the club sponsoring an elementary school in the past, and that a sponsorship of some type might be an idea.

NC QSO Party Chair: **Marty Young, W4MY**

Sent out e-mail mirroring the one posted on the QSO QRZ page.

RARS VE Coordinators: **Joe White, WA4GIR**

Liz White, K04CK

Suggested the possibility of in-person testing at the church, but did not get any commitment.

RARS Board Meeting Minutes continued

RARS Webmaster:

Hank Montgomery, K4HM

No report

Trustee Chair:

Carl Davis, W8WZ

Everything is up to date. No issues.

At Large Director:

Alan Pitegoff, AB4OZ

There was an incident last week where a couple of young people were on the repeater using CB language, causing the need for Alan to turn the repeater off. Alan reiterated that you are not allowed to talk to illegals.

At Large Director:

Tadd Torborg, KA2DEW

Noted that he has a considerable amount of equipment available for youth prizes.

At Large Director:

Ken Latchum, AD4GX

No report

Past President:

Carl Davis, W8WZ

No report

New Business:

Tadd received information that television station, WCTI has two vans with telescoping masts that they want to donate to an entity with a tax ID. Tadd suggested that RARS might be interested in accepting one of the vans. After some discussion, the idea was shelved pending further investigation. It was decided that more information would be required before a decision could be made. John requested that a proposal be put together and presented at the next BoD meeting.

RARS Board Meeting Minutes continued

Old Business:

There was a discussion concerning the future status of holding *RARSfest* in 2022. Major concerns for holding *RARSfest* were the new procedure for handling the new food aspects, possible decline in attendance, a decline in the number of club volunteers. The drop-dead time for canceling, with no penalties, is 120 days before the event. This item has been shelved until a later date.

Greg brought up the renewal of the club “hot spots” coming due and questioned whether or not to keep the subscription. The board agreed to go ahead and pay for the new subscription. This may be visited later.

Carl noted the status of the FCC regulation dealing with Trustees, leading to a discussion initiated by Hank questioning whether the additional trustees should be considered voting members of the board. Discussion has been shelved for now.

New Action Items:

John Honeycutt:

- Continue attempting to contact Marv Hoffman for the title of his speech in April.
- Set up times with Tom to get pictures for the Plaque recipients.

Curt Phillips:

- Touch base with JARS concerning liability insurance for their van.
- Send Tom Lewis a spot referencing the SWL meetings.

Tadd Torborg:

- Put together a detailed proposal for the club accepting the donation of one of the TV vans.

RARS Board Meeting Minutes continued

Brantley West:

- At Chuck's suggestion, write a monthly article to be put in the Exciter.
- Send a survey to the membership asking what of youth involvement they might be interested in, if any.

Charles Good volunteered to assist Brantley with the Boy Scout segment of the youth programs.

Meeting Adjourned at 8:49 PM.

Next meeting date: March 16, 2021

Minutes respectfully submitted by,

Mark Kilmer (KM4JRH)

Secretary

Raleigh Amateur Radio Society

RARS Membership Meeting – March 9, 2020

7:30 PM on Zoom

The meeting was called to order by John Honeycutt at 7:30 PM.

The Pledge of Allegiance was recited.

Bob Condor (K4RLC) announced Ray Burlingame (G4FON), tonight's speaker, who presented his program entitled The Bletchley Park Story. Ray then entertained questions.

John Honeycutt (N8ZU) made the presentations to the individuals who were awarded the Special Lifetime Membership Awards. Also presented were the Thank You Award certificates to those who have made a significant contribution to the club, and HAM radio as a whole. Call for recognition of visitors, new members and license upgrades:

RARS Membership Meeting Minutes continued

John invited any new members, visitors or those who recently received licenses or upgrades to introduce themselves.

Quorum call:

A quorum was present.

Minutes for February 2021 were approved.

Officer Reports:

President - John Honeycutt, N8ZU

The next Board meeting will be at 7:00 PM next week. Club members may attend as guests by request the Zoom information from Greg Seamster via a link on the club website.

Vice President - Tom Lewis, N4TL

The next club meeting will be an ARRL update from Marv Hoffman (WA4NC).

Treasurer - Greg Seamster, KE4PAX

The current membership is at 439 members. Greg also reported cash assets and inventory.

Secretary - Mark Kilmer, KM4JRH

No report

RARS Membership Meeting Minutes continued

Specific Announcements or Reports from Directors:

Director at Large – Alan Pitegoff, AB4OZ

Has performed repeater site surveys and noted the upcoming AB4OZ HAMfest.

Public Service Director – Jeremy Lindsley, K2HJX

Noted that upcoming activities have posted on the RARS website.

Youth Director – Jeremy Lindsley, K2HJX

Requested that everyone fill out the new youth interest survey he has sent.

Floor Opened for Additional Announcements or Reports from Directors or Members:

Carl Davis, W8WZ, announced this weekend is the QSO Today on-line HAM Radio Expo.

Meeting Adjourned at 9:32 PM.

Next meeting date: April 13, 2021

Minutes respectfully submitted by,

Mark Kilmer (KM4JRH)

Secretary

Raleigh Amateur Radio Society

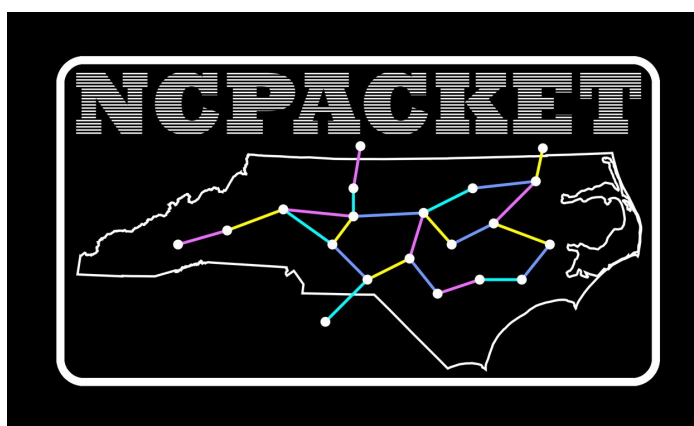
A North Carolina Statewide Project to Attract and Retain New Hams

To attract and retain new people in our hobby, especially young people, a group of more than 40 hams are actively building a new VHF/UHF ham radio project. More than 125 group members state-wide are keeping tabs on the project, along with countless others outside of North Carolina. The project is to create a state-wide text message chat room over ham radio using Raspberry Pis and modified surplus VHF and UHF commercial 2-way radios. Participants access the network using devices or computers connected to the Raspberry Pi via local WIFI or Ethernet, but *not* via the Internet.

For the participants, the purposes of the project are fun, creativity, exploration, education, comradery, and preparedness. It's a text messaging forum by and for hams, and using an infrastructure, we get to make. For ham radio in general, this project is very attractive to Makers and to kids who grew up with highly integrated communications devices but never had the chance to learn about walkie-talkies and broadcast radios. Every participant gets to learn and to operate in the network from a full-featured and expandable 24/7 network switch, with electronic mail, and an always-up round table chat room.

The technology we are using, including our own home-brew modem cards, is 5 to 10 times faster than what is used in APRS and 1200 baud packet radio. Our network architecture is yet another 10 times faster than old-school packet networks, giving us the ability to create a lively round table chat room capable of supporting dozens of chatters and hundreds of lurkers, each getting a copy of all of the chatter, across a 100-county region. The system is text only for the most part, but that allows us to deliver a fun, fast, cheap network for our purposes.

We started the project in 2014, coining the name Terrestrial Amateur Radio Packet Network. Later, after the TARPEN project and email reflector attracted attention all over the world, we created a local instance called NCPACKET, which is focused on the implementation of a North-Carolina-centric social chat room network. The technology and recipe are TARPEN's, the network is NCPACKET, and the project is a social network, starting with a text chat room.



NC Packet continued

We have a locally grown (thanks Fin, NC4FG) user-interface based on a web server running on the Raspberry Pi, and we pledge not to make it accessible over the Internet. By avoiding the Internet, we attract people who prefer a hobby; a home-brew, non-commercial, challenging ham radio project. This model has served us well.

We built our own modem card for the project. The unit, billed as a "TNC", which is the term given to packet radio communications accessories starting in 1980, is much more than any 1980s example. Like the 1980s TNC, our device connects to a host computer, the Raspberry Pi, and to a transceiver for digital data delivery. Unlike those old TNCs, our unit is tailor-made for NCPACKET and TARPEN, supporting our own protocol as well as standard-as-bricks 1200 baud Bell 202 AX.25 used for APRS and other modes. The TNC was created by KK4HEJ who lived in Goldsboro. Nino (KK4HEJ) is a pilot in the USAF and was relocated to San Antonio in the middle of the project. With some collaboration with other North Carolinians, he's titled the project "TARPEN NinoTNC" and is selling the circuit board and programmed processor for \$9.29 on Etsy.com. We wrote up fantastic build instructions including board-level testing, and we publish and maintain the bill-of-materials suitable for uploading to parts-vendors, like DigiKey, so the purchaser can buy the entire product for about \$30 plus shipping. NCPACKET uses the NinoTNC with our own Improved Layer-2 Protocol and at 9600 baud using our modified commercial 2-way radios. NinoTNC uses USB to connect to the host computer and our recipe can support eight NinoTNCs on each Raspberry Pi; most participants have two or three NinoTNCs on their Raspberry Pi. TARPEN has sold over 1600 units all over the world in the 12 months since we made it available.

Hams in Raleigh, Durham, and Wendell started the TARPEN project in 2014, keeping the project under wraps until the recipe was ready to be tried outside our small community. In 2016 we started recruiting volunteers to assemble nodes on their own, with some success. Even at the start, we had a goal of producing a network plan which could be acquired, assembled, and deployed by "every-ham". We started with a novel architecture that permits the network to be fully saturated without getting jammed. This means with a 9600 baud channel throughout the network, we can transport 5 lines of text per second to every station on the network. That's enough bandwidth to support four or five raucous chat channels at the same time. Considering that our target market is about 500 hams, most of who will not be typing at the same time, four data channels should probably be enough. As of March 2021, we are in Alamance, Orange, Chatham, Durham, Granville, and Wake counties with 40 connected stations.

In the future, we hope to have a non-real-time social media aspect as well as the chat room. We have an architectural model for that component that allows distributing the voluminous library of material, created continually, entirely on our network (of course), so that stations accessing the media will not have to wait and can browse the posts in real time.

NC Packet continued

Our banner and icon are aspirational. Nothing has stopped us (so far!). The project as a whole is a challenge, but highly rewarding. This isn't a throwback. It's basic, it works well, and hams own it. No automatic gateways or wormholes are allowed. What you see is really ham radio. Welcome to the party. This is going to be fun.

So what should you, the reader, do? If you can, build your own station and a part of a second station. Build enough that you can play with it on your own bench. Perhaps somebody else within range will build one too and the two of you can get it working together. The rest of the NCPACKET group are also out here to help and we're very enthusiastic.

We're looking for individuals who are communicators. We're looking for people who would chat and help the other stations on the chat. The conversations vary from drill bits to sail boats to wire antennas and radio selection. We also talk about lunch. We want hams to learn how this stuff works and to both collaborate on the technology and to help new participants get going.

It's more interesting to have 5 or more stations in any starter network. Getting connected to the larger network already in existence is a serious bonus. Where ham clubs may come in to play is in publicizing the effort. The benefit to doing this house to house is serviceability, and the involvement of more hams. Having all relay sites located at ham houses may not fly once we get to the NC/TN border where mountains are more common than hams, and it may already be supremely difficult in some rural areas where there just aren't any hams. The important thing is that hams work together and learn what they can from the project. That's pretty much what working on a big ham project is all about.

Make contact with the rest of NCPACKET by joining our groups.io reflector. See our web page for information.

No Internet Required. No Internet Desired

Visit us on the web: NCPACKET.NET

Our NinoTNC is for sale on <http://etsy.com> search term "ninotnc".

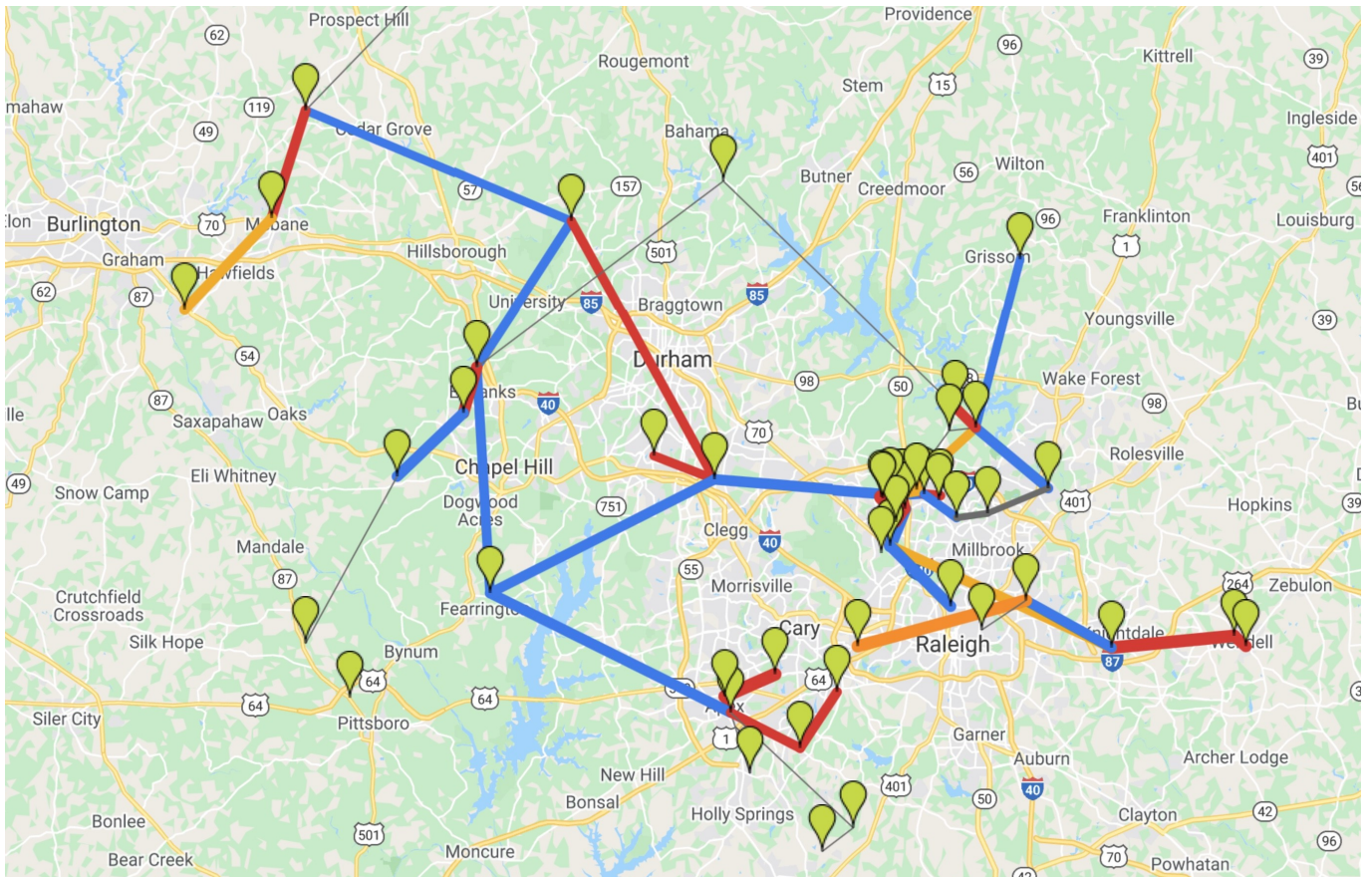
The NinoTNC's documentation including build instructions, operation instructions, and project history are on <http://tarpn.net/d>

The station/node recipe, shopping list, photos, network architecture, system rules, and block diagrams are on <http://tarpn.net>

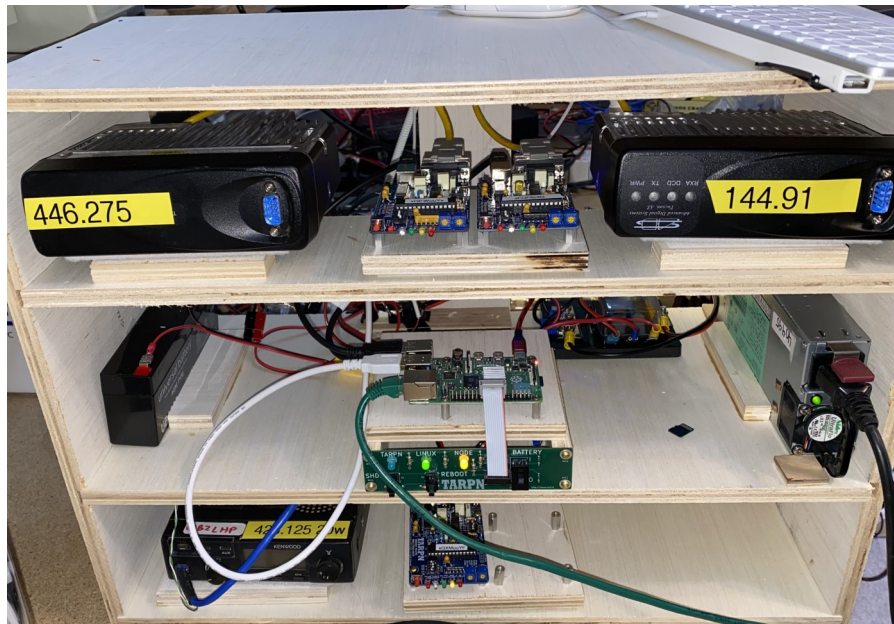
Your author is Tadd KA2DEW, in Raleigh NC

My BIO is on <http://qrz.com/db/ka2dew>

NC Packet continued

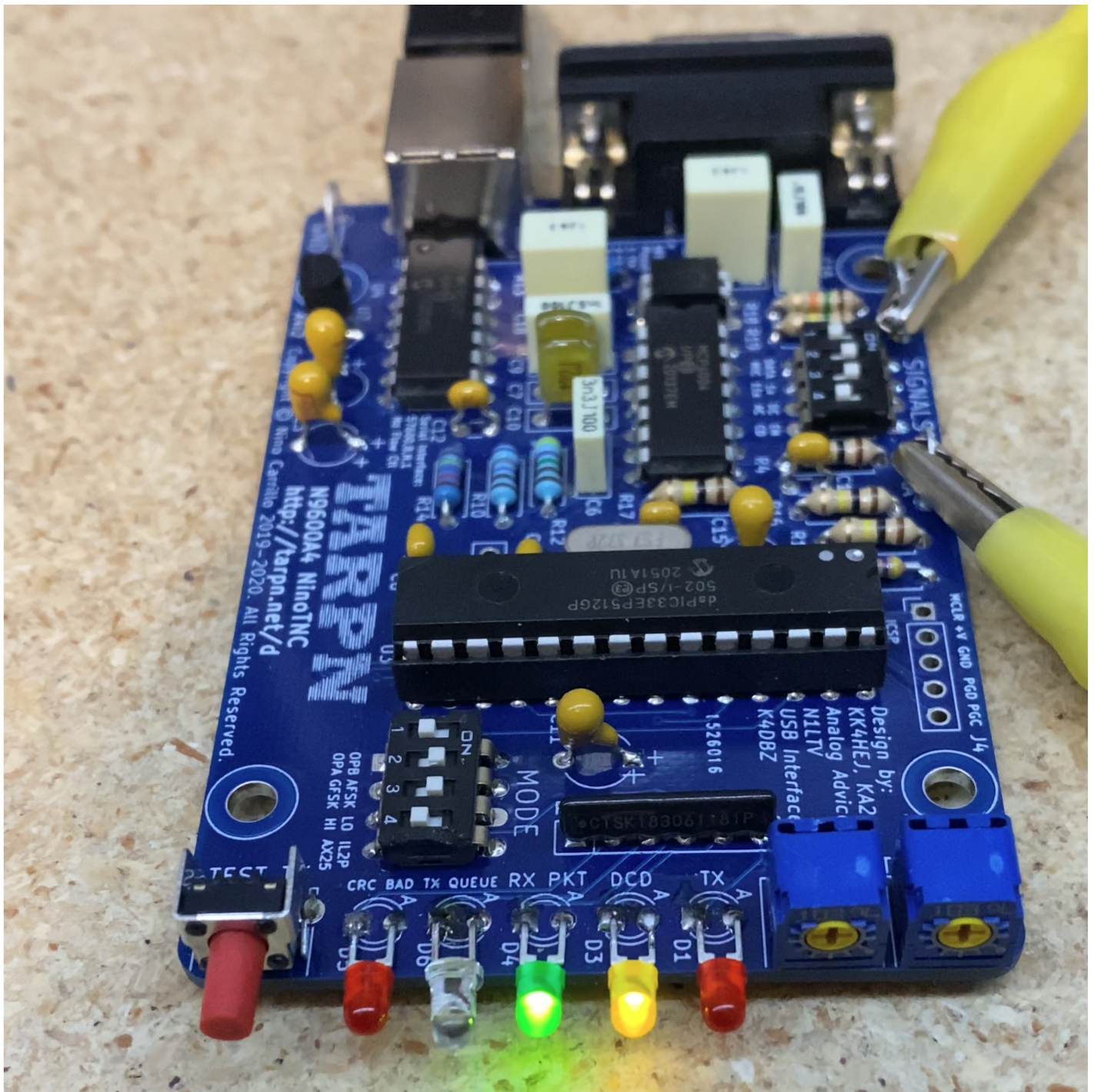


Map of March 2021 network,



Example of a 3-port station

NC Packet continued



NinoTNC final assembly test,

NC Packet continued

TARP Home

Python Application Layouts: A

Edit Forwarding

192.168.0.205:8085

170%

Search

TARP N Terrestrial Amateur Radio Packet Network

TARP N HOME

Chat

Node

BBS

Info

Chat Traffic

10:25 AM: KA2DEW Tadd : I just updated the NINO-TNC INFO page.
http://tarpn.net/t/nino-tnc/n9600a/n9600a_info.html

10:25 AM: KA2DEW Tadd : with photos of the new board down in the news section.

10:26 AM: KK4VBE Chris : Nice

10:26 AM: KO4ISE Josh : Hi Chris!

10:27 AM: KK4VBE Chris : HI Josh

10:32 AM: KN4BTI Mark : Good morning

10:32 AM: NC4FG Fin : Hi Mark

10:33 AM: KA2DEW Tadd : good morning Mark.

10:33 AM: KN4BTI Mark : Tadd-do you remember who we were talking with about hanging the fan dipole?

10:33 AM: KK4VBE Chris : I am so glad it is not snowing

10:33 AM: KA2DEW Tadd : Larkin maybe?

10:34 AM: KA2DEW Tadd : AaronL, Fin, and I have the same store bought Alpha-Delta model "DX-CC" 10, 20, 40 +loaded 75 Dipole.

10:35 AM: KN4BTI Mark : We were trying to decide if we needed a center support

10:35 AM: KA2DEW Tadd : it works well, though the 75m is not as good an element as a full sized 75m dipole.

10:35 AM: KA2DEW Tadd : Mark, it depends on how much stress you can put on the end supports.

10:35 AM: KA2DEW Tadd : Aaron and I do not have a center support on ours, Fin's is supported at the center.

10:36 AM: KA2DEW Tadd : It also depends on how high your end ropes are.

10:36 AM: KN4BTI Mark : Exactly, and I think Doug had mentioned that he strung up a dipole without a center support

10:39 AM: NC4FG Fin : I have one supported and one unsupported

10:40 AM: NC4FG Fin : The unsupported sags a good bit in the middle but that's ok

10:41 AM: KA2DEW Tadd : If the end ropes aren't very high, the center support may be required to keep the antenna off the ground.

10:42 AM: NC4FG Fin : Or off the roof in my case

10:42 AM: KN4BTI Mark : Based on my continuing evaluation, I'm pretty sure I can get high enough

10:44 AM: KN4BTI Mark : The next nice day, I'm going to get a spot put in one of my trees

10:46 AM: KA2DEW Tadd : Snow would be a problem. If it is snowing up north I may try to get snow tires for the front wheels.

10:47 AM: KA2DEW Tadd : I'll be back.

10:56 AM: NC4FG Fin : The next nice day...so, in April?

10:56 AM: KN4BTI Mark : I hope not!

10:58 AM: K4DBZ David : hopefully my holiday antenna plans are not totally dashed

11:00 AM: NC4FG Fin : cool and clear and breezy tomorrow? Quite a change from now.

11:00 AM: KN4BTI Mark : Quite a bit cooler!

11:04 AM: KN4BTI Mark : Gotta go. TTYL

SWITCH: ☒ ☐ Mute

26 Chatters

KA2DEW, Tadd	15m
K4DBZ, David	
KW4KZ, Chuck	11h
KS4PE, Patrick	17h
W4OFO, DavidB	69d
N7RYN, Ryan	3d
K4FD, Dan	1d
KN4BTI, Mark	
KA9QJT, Brian	1h
W4EIP, dave	8d
W4TTX, Bob	5d
K4CBW, Brantley	2d
N3LTV, Doug	14h
KN4ORB, AaronL	21h
KC2BXN, Ian	1d
N8ZU, John	31d
AG4DB, Daniel	7d
KE4VNC, Billy	20h
NC4FG, Fin	
K4RGN, Chuck	23h
KO4ISE, Josh	36m
NC4AU, Larkin	10h
KA4MRN, George	3h
KO4IBM, skye	5d
W1KES, Keith	3d
KK4VBE, Chris	30m

I'm Away

I'm Back

Status Hint:

• = Available

✖ = Away

○ = Idle

Last Sent: away

To Send:

Commands: Choose Command

Send

Clear

Join

Leave

Reboot App Server

TARP N | About | Help | Options | TARP N Home V2.02

Screenshot of TARP N-HOME